**Impact of Managerial Ability on Investment Decisions of Manufacturing Companies Registered by IDX in the 2014-2016 Period**

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## Abstract

With the opening of the ASEAN Economic Community (AEC), Indonesia which is a member of ASEAN must be shared given, therefore the company must have a reliable manager in order to continue to benefit from the existence of this MEA, therefore this research was made with the aim to explain Effect of managerial ability on investment policy The sample of this study is manufacturing companies that have been Go-Public in 2011-2016. There were 396 observations that were used as a reference in this study. This study uses multiple linear analysis techniques. The dependent variable in this study is the company's fixed asset investment policy, while the independent variable is the managerial ability needed to improve the efficiency of its resources. This variable was analyzed with Data Envelopment Analysis using Banxia Frontier Analyst as a tool. The results showed that managerial had a significant negative effect on fixed inventory investment policy.

**Keywords:** Managerial Policy, Investment Policy, Analysis of Development Data.

***Abstrak***

*Dengan dibukanya Masyarakat Ekonomi ASEAN (MEA), Indonesia yang merupakan anggota ASEAN harus menghadapi dampak ekonomis yang diberikan, maka dari itu perusahaan harus memiliki manajer yang handal agar tetap dapat bertahan dalam gempuran pasar global dan memperoleh peluang investasi bagi perusahaannya juga memperoleh profit dari kondisi ini, maka dari itu, penelitian ini dibuat dengan tujuan untuk menjelaskan bahwa kemampuan dari suatu manajer dalam melihat peluang pasar, melihat kondisi perusahaan, dan kemudian membuat keputusan dalam kebijakan investasi aktiva tidak lancar. Dalam studi ini, sampel penelitian yang digunakan adalah perusahaan manfufaktur yang telah terdaftar di Bursa Efek Indonesia dari tahun 2012-2016 sejumlah 396 observasi. Dalam menganalisis hasil statistiknya menggunakan teknik uji statistik linier berganda. Kebijakan investasi aset tetap dalam penelitian ini merupakan variabel terikat, dan variabel bebasnya adalah kemampuan manajerial yang diukur dengan alat Banxia Frontier Analyst. Kemampuan manajerial diukur dengan seberapa mumpuni seorang manajer dalam mengelola sumber daya atau input yang dimilikinya dan menghasilkan profit bagi perusahaannya. Data Envelopement Aanalyst (DEA) digunakan sebagai teknik pengukuran kemampuan manajerial. Sehingga, penelitian ini menghasilkan pengaruh yang signifikan negatif bagi kemampuan manajerial dalam mempengaruhi pengambilan kebijakan investasi aset tetap.*

***Kata kunci:*** *Kemampuan Manajerial, Kebijakan Investasi, Analisis Envelopment Data*

**INTRODUCTION**

The phenomenon of globalization in the economic field has a positive impact on local companies. One of them is to open up opportunities for companies to get involved in a wider business environment. It also can open up opportunities for companies to expand their market share, but on the other hand it is also a challenge for companies, because they have to accept competitors from all over the world. Indonesia is part of the Southeast Asian region and is incorporated in ASEAN, therefore, whether or not ready, Indonesia with all its strength must be able to survive in the Asean Economic Community (AEC).

Figure 1. Investment Realization Development Data for 2011-2016

Based on the data in Figure 1 it can be seen that the level of foreign investment in Indonesia is higher when compared to domestic investment. The highest foreign investment in Indonesia occurred in 2016. Referring to the data, an indication emerged that foreign investment has increased significantly in 2016 since the opening of MEA traffic.

Managerial skills can be shown from the extent to which efficiency is applied by managers in managing company resources to produce outputs that are profitable for the company (Demerjian, Lev, & McVay, 2012). All activities carried out by a company, which are related to the company's financial activities, will affect the company's assets, liabilities, capital, expenses and income. Therefore a reliable manager is needed to make the right policy formulation so that the company gets the maximum profit.

The choice of a company's investment policy is influenced by how brave the manager is to take risks and how stable the company's cash flow is and also considers the economic condition of the company's country, competition, and manager's nature. According to (Demerjian et al., 2012), measuring managerial skills, is at the core of many research questions, such as examining managerial contributions to company performance and investment decisions, executive compensation, corporate governance, the economic impact of company ownership, and differences in productivity across countries. Previous research has shown that managerial skills (skills, talents, reputation, or style) influence economic outcomes, therefore it is important to conduct economic research, finance, accounting, and management research and practice.

High managerial skills can be a guarantee of the quality of the company in the capital market, because of the lack of information asymmetry about the value of the company between the insiders of the company and outsiders to achieve lower capital costs. (Andreou, Karasamani, Louca, & Ehrlich, 2017). A reduction in information asymmetry enables creditors to anticipate future performance and more accurately assess the possibility of defaults, which are defined as lower debt costs and more flexible contract terms such as maturity, covenant restrictions, or collateral requirements (Andreou et al., 2017). In addition, the higher the manager's ability is considered capable of solving agency problems better (Andreou et al., 2017), managers who are able to increase the credibility of these managers and companies in the eyes of creditors and other stakeholders in general. Credibility is important, especially during the financial crisis, because this period increased friction in the external capital market. Such friction hinders a company's capacity to obtain capital to pursue investment projects (Andreou et al., 2017)

Managerial skills have measurement variables that are generic or do not have specific measurement criteria, therefore managerial ability in this study is measured based on the ability of managers to obtain optimal income for their company by managing all resources owned efficiently using (Proudlove, 2000) Data Envelopment Analysis (DEA). Consider several sources of income including company total assets, total workforce, days COGS inventory (DCI), and days sold outstanding (DSO). Then the output used is sales.

Research conducted by (Andreou et al., 2017) provide evidence that managerial skills have a positive impact on corporate investment policies during the 2008 financial crisis period. In this study managerial skills are an important dimension because they affect the quality and performance of the company during a crisis period. With good managerial skills, the company can reduce the problem of underinvestment by gaining access to more resources so that it can increase the value of the company. This research was applied to 2748 manufacturing companies to see the impact of managerial skills during the crisis and before the crisis.

While research conducted by (Sun, 2016) shows the results that are contrary to the research conducted by (Andreou et al., 2017). (Bligh, Pearce, & Kohles, 2006) conducted research on this topic to 78,000 companies in the 1989 to 2009. deadline. This research also used company data during the crisis. In the research carried out and providing empirical evidence that managers who have managerial abilities that meet the category are not always directly proportional to the company's progress. Managers who have skill levels beyond the usual standard are more likely to make opportunistic decisions or try to use the opportunities available for their own interests rather than meeting investor expectations. A manager who has high skills with an opportunistic nature usually does earnings management. The practice of earnings management is to implement low cost earnings management, so it tends to be careful in managing accruals (Berrospide & Edge, 2010).

So if you see the results of previous studies whose results are inconsistent, it is necessary to conduct a re-study of the effect of managerial ability on investment policies of manufacturing companies. With these considerations it is hoped that this research will complement existing research and be compatible for consideration by investors to consider the competency side of company managers before deciding to invest (Berrospide & Edge, 2010).

In this study we took a research sample in the form of a manufacturing company registered at (Setyarini, 2010) Indonesia Stock Exchange (IDX) in the 2011-2016 deadline. The choice of manufacturing companies in this study is due to the demand for manufactured goods that will remain stable and not too affected by the ups and downs of a country's economy. Based on the description above, researchers are interested in conducting research on the effect of company managerial skills on investment policies chosen by manufacturing companies.

**THEORETICAL BASIS**

1. **Agency Theory**

(Sri Hasnawati, 2015) explain that an agency relationship is a contract in which one or more principals assign another person (agent) to perform services on behalf of the principal by delegating decision-making power to the agent, in this case the principal as a shareholder or investor while the agent is the management that manages the company. This agency theory is a theory that can explain the contractual relationship between company owners and their managers.

1. **Managerial Ability**

Managerial ability is the manager's ability to strategize, manage, and manage the company to use the input or resources owned by the company to maximize output or income. Each working capital investment policy has weaknesses and goodness. Which policies should be chosen by a company, depends on the characteristics of the manager and the characteristics of each company (Silva, 2010). According to (Demerjian et al., 2012), Managerial ability is considered high when managers generate more significant income by using a certain level of resources, or vice versa, when they minimize the resources used for a certain level of income. Measurement of managerial ability in this study uses Data Envelopment Analysist (DEA) to model company efficiency, in this step requires estimation of the value of company efficiency which is defined as the ratio of output generated by the company to the input or resources used by using the DEA formula as follows:

(k = 1,....., n)

≥ 0

≥ 0

Explanation :

θ = The level of efficiency of a company k (in numbers)

Ui = The quality of income i can produce by the company k

Yik = Total total income i from company k and calculated from i = 1

hingga s

Vj = The quality of income used by the company s

Xjk = The total revenue of j from company k is calculated from j = 1 up to m

In this research, the output used is sales. Inputs in this study use total assets, total workforce, DCI or Days COGS in Inventory, and Outstanding Sales Days (DSO).

1. **Types of Managerial Characteristics**

Each leader has certain characteristics to provide direction in carrying out business activities in accordance with the objectives to be achieved by the company (Berk & Stanton, 2007). Company leaders as executives have two characteristics, namely risk takers and risk averse. Executives who are risk takers are executives who are more courageous in making business decisions because the higher the risk taken, the higher the benefits. In contrast to risk takers, executives who have the character as risk averse tend to dislike risk.

1. **Investment Policy**

(Abidin, 2017) states that investment is a commitment to a number of funds or other resources made at this time, with the aim of obtaining a number of benefits in the future. According to Zaki (2013), Investment decisions related to the process of selecting one or more investment alternatives that are considered beneficial from a number of investment alternatives available to the company. The investment policy in this study was measured using capital expenditure divided by total net assets at the beginning of the year.

1. **Data Envelopment Analysis(DEA)**

*Data Envelopment Analysis* (DEA) introduced by (Proudlove, 2000). This method is one of the evaluation tools to examine the performance of an activity in an entity unit. (Demerjian et al., 2012). Argues DEA is a mathematical programming technique used to evaluate the relative efficiency of a collection of decision making units (DMU) in managing resources (inputs) of the same type so that it becomes the result (output) of the same type as well , where the relationship of the form of the function from input to output is known.

**HYPOTHESIS DEVELOPMENT**

1. Effect of Managerial Ability on the Company's Fixed Asset Investment Policy

The ability of a manager to manage the utilization of resources efficiently through decisions and choices that include investment, capital, labor, and other activities that generate profits for the company. The higher managerial ability possessed by a company, the manager will be more daring to take risks from the investment generated, because with good managerial ability a manager can predict market conditions in the future better.

1. Effect of Company Size on the Company's Fixed Asset Investment Policy

The size of the company represents the size or size of a company expressed by total assets or total net sales. The greater the total assets and sales, the greater the size of a company. In this study, company size is defined as Natural Logarithm of total assets. Size shows the quality and strength of the company, where the greater the size of a company, it can use easier access to enter the capital market, making it easier for companies to get investment and can generate more profitable funding returns.

1. Effect of MTB (Market-To-Book ratio) on the Company's Fixed Asset Investment Policy

A company that has a higher MTB value has the opportunity to grow high too, so that it can drive up market expectations for the company's profitability in the future. Therefore, a company with a high MTB will also increase external financing sources such as investment, because with a high MTB, the company is considered efficient in carrying out its operations using its assets because it has an asset value that is higher than the value of its assets.

1. Effect of Leverage on Company Fixed Asset Investment Policies

According to Zaki, (2013). Shows that leverage has a positive effect on a company's investment, which in its analysis shows the use of debt is done if internal funds are inadequate. Therefore, the higher the leverage level of a company, the higher the level of corporate investment because companies tend to rely on internal funding from their own capital and external debt to finance their operations so that corporate investment is stronger.

1. Effect of Stock Return Performance on Company Fixed Asset Investment Policies

Investments in fixed assets made by the company affect the company's operations and affect the resulting fluctuations in profits. Profit can be used as a benchmark of how successful managers make efficiency. It also serves as a guide for future decision making. In general, own profits have also been recognized as a measure of return on investment. The greater the profits obtained, the better an investment business (Abidin, 2017).

1. The Effect of Return on Assets (ROA) on the Company's Fixed Asset Investment Policy

Companies that have a high level of ROA ratio indicate that the company is able to generate high returns from investments in assets owned by the company, thereby increasing motivation for companies to increase their investment to get higher investment returns. That is because the increase in ROA means that the company is considered capable of producing corporate profits also has increased.

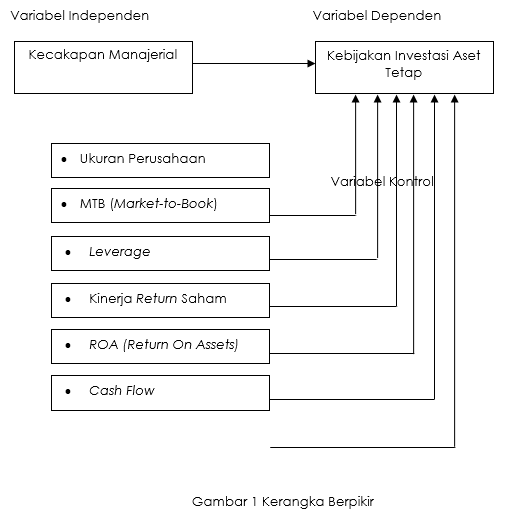
1. The Influence of the Company's Cash Flow on the Company's Fixed Asset Investment Policy

Cash flow is a source of internal funding for companies according to Zaki, (2013). Based on the pecking order theory, managers tend to make investment decisions by relying on internal funds first, using internal cash flow as the first choice in making investment decisions because of the asymmetric information between the company and shareholders. Cash flow in this study is used to calculate the occurrence of financial shortages that can allow more investment to overcome the agency problem of "under-investment".

The results of research conducted by (Andreou et al., 2017) provide empirical evidence that there is a positive relationship between managerial ability and the company's fixed asset investment policy. Andreau through this research tries to describe and solve the problem of lack of investment faced by the company during the crisis which resulted in the company lacking funds to run its operations. From the facts of the research, it was found that the higher managerial ability possessed by a company, the more daring the manager is to take risks from the investments generated, because with good managerial skills a manager can predict market conditions in the future better . Based on this foundation, the following hypotheses can be formulated:

H1 : Managerial skills have a positive effect on the investment policy of fixed assets of manufacturing companies listed on the IDX.

**RESEARCH METHODS**

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This study uses a quantitative approach, which is an approach in research that emphasizes its analysis of numerical data (numbers) which are dealt with by the statistical method. Quantitative research is used to test a theory, present a fact or describe statistics, show relationships between variables and some are developing concepts, developing understanding, and describing many things (Yunanto, 2017)

The foundation of this research is the theory and some available literature as well as some previous studies relating to the problem to be studied, then proceed with the formulation of the problem to be answered, then sparking the hypothesis as the beginning of the research. This study takes the population in the form of all manufacturing companies whose names are officially written on the Indonesia Stock Exchange (IDX) on the deadline of 2011 to 2016.

**OPERATIONAL DEFINITION**

1. Company Investment Policy

Fixed asset investment policy is a decision taken by a company to choose an investment decision that is profitable for the company. Measuring the company's investment using a ratio of the ratio of Capital Expenditure to total assets of the company. Company investment is measured by the formula:

1. Managerial Ability

In this study skills are measured using a comparison between input and output using the Data Envelopement Analysis approach. Size (Company Size)

Size or size of the company is a comparison of the size or size of the company or organization, which is defined by the Natural Logarithm of total assets.

1. MTB (Market-to-Book Ratio)

MTB or Market-to-book ratio is the result of the ratio of the ratio between the two variables namely the market price per share and the book value of the company. In this study MTB was measured by the formula:

1. *Leverage*

Leverage is the book value of debt divided by the book value of the company's total assets. In this study leverage is measured by the formula:

1. Stock Return

Stock returns are returns that are calculated using a comparison of stock prices in a certain period of time. In this study stock returns are measured using the formula:

1. *Return On Assets* (ROA)

Return On Assets (ROA) is the company's ability to generate profits and taxes using all assets owned by the company. In this study ROA was measured using the formula:

1. *Cash Flow*

Cash Flow is a description of the amount of cash that comes in with cash out at the company. The company's cash flow in this study was measured using the formula:

**ANALYSIS TECHNIQUE**

Data processing of the results of the study was carried out by analyzing, we applied this method to be able to provide an explanation and interpretation of the data obtained, the technique used in this study was a multiple linear regression analysis technique. The reason researchers use this technique because this technique is suitable for measuring how influential two or more independent variables in one dependent variable can also predict the dependent variable using the independent variable.

To measure the independent variables in this study using Data Envelopment Analysis, this method is a special method to measure the level of managerial skills in finance by using the MA-Score as an analysis tool. MA-Score will give a high value to managers who are able to generate higher income. There are several steps in carrying out multiple linear regression tests, as follows:

1. Calculate research variables consisting of: managerial skills, fixed assets investment, firm size, MTB (Market-to-book) ratio, leverage, stock return performance, ROA (Return On Assets) ratio, and cash flow as explained in the operational definition during the study period.
2. Conduct a classical assumption test, to see whether a regression model is feasible or not used in research. The test consisted of a normality test, a multicollinearity test, a heterokedasticity test, and an autocorrelation test.
3. Perform multiple linear regression analysis using data from the results of previous calculations assisted by using SPSS 23 software.
4. Determination Coefficient Test (R2)
5. T test is conducted on partial hypothesis testing, to determine whether there is an influence of the independent variables individually on the dependent variable.

**RESULTS AND DISCUSSION**

Based on the results of the regression analysis shown in table 1 shows that the Managerial ability (DEA) has a regression coefficient of -0.016 with a significance value of 0.057, which means α is greater because it has a value of: 0.10 so H0 fails or in other words asset investment policies nonetheless the company was significantly affected negatively by the DEA. That means, if the manager of a company has a high ability it will affect the mental condition of the manager, which arises a feeling of overconfidence and tends to take decisions carelessly, causing a decrease in corporate investment. Empirical evidence reveals that excessive confidence carried out by managers can cause distortions in corporate investment decisions (Sun, 2016).

The size of the company (SIZE) has a regression coefficient of 0.005 with a significance value of 0.002 smaller than α: 0.01 so that H0 is rejected, this means that the investment policy of the company's fixed assets is significantly positively influenced by SIZE or company size. From these calculations can be interpreted, the larger the scale of a company, the greater the funds that will be spent on operations and investment. The source of funding used can be in the form of debt or equity.

Market-to-book (MTB) has a regression coefficient value of 0.003 with a significance value of 0.217 greater than α: 0.10 so that H0 is accepted and H3 is rejected, which means that MTB does not significantly affect the company's fixed asset investment policy. Then from these data it can be formulated that the greater the value of a company in market conditions, it does not also affect the investment in fixed assets made by the company. Because fixed asset investments made by companies do not require company access to the stock market.

Leverage coefficient (LE) value is a regression of -0.030 with a significant scale value: 0.015 and smaller than the coefficient α: 0.05 which results in H0 failure, which means the LEV has a negatively significant effect on the company's fixed asset investment policy . So when investors find out that the company they are aiming for relies on debt in their funding, investors will catch a bad sign to the company because of the possibility that the company has obstacles related to capital structure problems.

The coefficient of performance return (RET) value is a regression of 0.015 with a significant value: 0.028, which means it is smaller than α: 0.05 so H0 fails. From the data it means that RET has a significant positive effect on the company's fixed asset investment policy. Then, if the stock return rate gets higher the higher the investment of the company's fixed assets because investors have already gotten enough return from capital gains so they do not expect returns from dividends. So that the profits obtained by the company can be allocated more in the amount of retained earnings, to fund investment in the company's fixed assets.

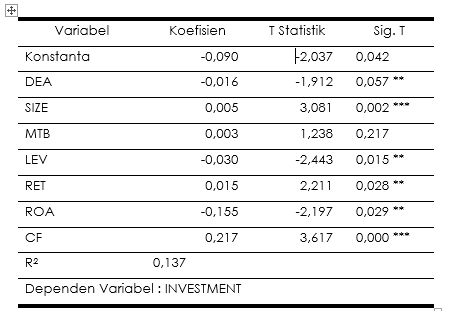
The coefficient of Return on assets (ROA) is a regression of -0.155 with a significance value of: 0.029 smaller than the coefficient α: 0.05 so H0 fails. From these data it can be concluded that ROA has a significant negative effect on the company's fixed asset investment policy. This means that if a company has reached an effective level in the use and management of its assets, the company tends not to need much fixed asset investment.

Coefficient value of Cash flow (CF) is a regression of 0.217 with a significance of 0.000 where the value is smaller than the coefficient α of value: 0.01 the data results in H0 rejected or can be interpreted that CF has a positive effect on the company's fixed asset investment policy. Based on the pecking order theory, the company relies more on internal funding in advance so as not to cause a mismatch of information with the company's external parties. That way the company does not need to distribute dividends and pay interest on the debt from cash if there is no investment from external parties.

The value of R square in multiple linear regression which shows the value of 0.137 which means that the managerial ability variable, company size, market-to-book ratio, leverage, return performance, return-on-assets, and cash flow can explain the variable policy of the company's fixed assets investment by 13.7%. While the remaining 86.3 percent is explained by other reasons outside the model.

Table 1: Summary of Results of Multiple Linear Regression

Analysis of Corporate Investment Dependent Variables

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**CONCLUSION**

1. Managerial ability has a negative and significant impact on the company's fixed asset investment policy. The results of this test indicate that the more capable a manager is, the company will tend to reduce investment in fixed assets, because it has achieved efficiency in managing its assets.
2. Other factors used in this study also provide a significant influence on the company's fixed asset investment policy, namely: firm size has a significant and positive effect on the company's fixed asset investment policy, market-to-book ratio does not affect the company's fixed asset investment policy , leverage has a significant and negative effect on the company's fixed asset investment policy, return performance has a significant and positive effect on the company's fixed asset investment policy, return on assets has a significant and negative effect on the company's fixed asset investment policy, and cash flow has a significant and positive effect on investment policy company fixed assets.

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